Math 126 End of Week 4 Newsletter

UPCOMING SCHEDULE:
Friday: Section 13.3 (Curvature, T-N-B Frame)
Monday: Section 13.4 (3D Motion – velocity/acceleration)
Tuesday: Exam 1 Return, HW Q&A
Wednesday: Section 14.1, 14.3 (Surfaces and Partial Derivatives)
Thursday: HW Q&A and Old Exam Problem
Next Friday: Section 14.3, 14.4 (Partial Derivatives and Tangent Planes)

Exam 1 Reviewing, Reflection and Regrades Information:
Early next week, I will be emailing you exam information and statistics. I also will be emailing information about regrades and an exam reflection survey. So be looking for that email. Briefly, here are some important things I will say:
1. When you get your exam back, quickly review it and immediately report any miscalculations or tallying to your TA.
2. Then take your exam home and review the questions, carefully read and consider the posted solutions. Also fill out the exam reflection survey (more information to come).
3. If you have carefully considered the exam and the solutions and you have a complaint about grading, then you must bring me your exam by Friday (at lecture or office hours). I will take your exam and consider the issue and add comments. You can NOT bring me regrade questions after Friday. I expect you to review your midterm immediately and bring me your questions right away.

HOMEWORK:
Closing Tuesday at 11pm: 13.3 (part 2)
Closing Thursday at 11pm: 13.4, 14.1

PREVIOUS HOMEWORK STATS:
10.1/13.1:   median score = 100%,   median time browser open to assignment = 125 minutes
10.2/13.2:   median score = 97%,   median time browser open to assignment = 203 minutes
10.3:   median score = 100%,   median time browser open to assignment = 116 minutes
13.3 (part 1): median score = 100%,   median time browser open to assignment = 100 minutes

NEW POSTINGS
Remember the course website is here: https://sites.math.washington.edu/~aloveles/Math126Spring2017/index.html
There are several new postings:
1. **Brief 3D Curve Fact Sheet**:
    https://sites.math.washington.edu/~aloveles/Math126Spring2017/3DParametricCalculusFacts.pdf
2. **Detailed Review of 13.3, 13.4 and 14.1 (Read the 14.1 part of this review before doing the 14.1 HW):**
    https://sites.math.washington.edu/~aloveles/Math126Spring2017/sp10m126week4review.pdf
3. **Review of 14.3**:
    https://sites.math.washington.edu/~aloveles/Math126Spring2017/sp10m126week6reviewA.pdf
4. **Practice with Partial Derivatives and review of derivative rules (including implicit differentiation)**:
    https://sites.math.washington.edu/~aloveles/Math126Spring2017/PartialDerivativesPractice.pdf

COURSE MATERIAL NOTE (remembering Math 124):
Read this carefully and check out the links if you want to be ready for Chapter 14!

We will finish our discussion about 3D curves on Monday. Then we will discuss surfaces next week.
The Chapter 14 discussion of surfaces is a lot like things you did in Math 124 for one variable functions. Here are some skills I expect you to remember from Math 124.
Given a one variable function can you answer these questions
a) What is a critical value?
b) What is a local max/min?
c) What is a global max/min?
d) What are the first and second derivative tests?
e) How do you do applied optimization problems?

It will be easier to understand Chapter 14 if you remember these facts. The one variable facts above are all from Chapter 4 of our textbook which you could reread if you don't know the answers to the questions above. You can also read these review sheets from my **materials from my Math 124 course**:
My basic review of these facts from chapter 4 of Math 124:
http://www.math.washington.edu/~aloveles/Math124Winter2013/m124week7reviewNOMeanValue.pdf
Overhead examples of applied optimization problems that we ask our students to do in Math 124:
http://www.math.washington.edu/~aloveles/Math124Winter2013/4-7OptimizationOverheads.pdf
If you want some general practice with critical points and max and min from calculus 1, check out these old finals:
Problem 8e and 8f from: http://www.math.washington.edu/~m124/source/Exams/Final/final_aut11/a11final.pdf
Problem 9 from: http://www.math.washington.edu/~m124/source/Exams/Final/final_sp11/sp11final.pdf

OLD EXAMS:
Remember there are many old exams (most with solutions) in the departmental **exam 2 archive** here:
    http://www.math.washington.edu/~m126/midterms/midterm2.php
and in my additional exam archive here:
    https://sites.math.washington.edu/~aloveles/Math126Spring2017/examarchive.html

Old Exam Problems from 13.3:
Problem 2 from: http://www.math.washington.edu/~m126/finals/m126finalAut2012.pdf
Problem 1 from: http://www.math.washington.edu/~m126/midterms/midterm2/m126win10bekyelExII.pdf
Problem 1 from: http://www.math.washington.edu/~m126/midterms/midterm2/m126aut10solomyakExII.pdf
Problem 1a from: http://www.math.washington.edu/~aloveles/Math126Winter2016/sp13m126e2honors.pdf
Problem 2 from: http://www.math.washington.edu/~m126/finals/m126finalAut2013.pdf

Old Exam Problems from 13.4:
Problem 1 from: https://sites.math.washington.edu/~aloveles/Math126Spring2017/w16m126e2.pdf
Problem 1 from: http://www.math.washington.edu/~m126/finals/m126finalAut2013.pdf
Problem 1 from: http://www.math.washington.edu/~m126/finals/m126finalAut2012.pdf
Problem 1b from: http://www.math.washington.edu/~aloveles/Math126Winter2016/sp13m126e2honors.pdf
Problem 1a from: http://www.math.washington.edu/~m126/midterms/midterm2/m126spr11lovelessExII.pdf
Problem 5 from: http://www.math.washington.edu/~m126/midterms/midterm2/m126spr13perkinsExII.pdf
Problem 2 from: http://www.math.washington.edu/~m126/midterms/midterm2/m126aut13taggartExII.pdf

I hope some of this helps.

Dr. Andy Loveless